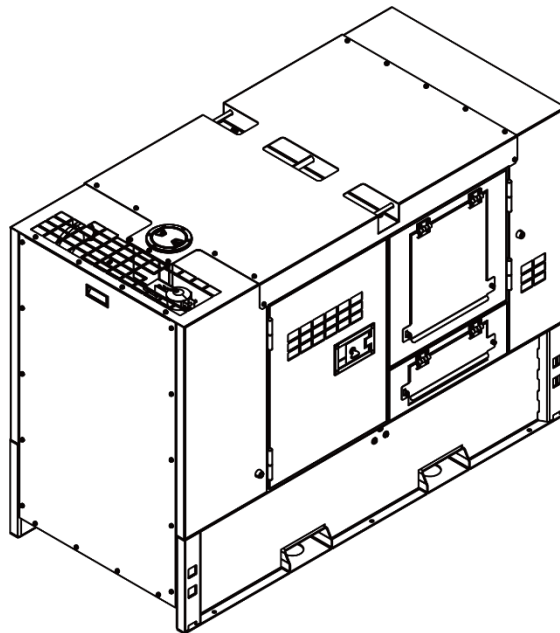


**QSV10KS**

# DIESEL GENSET SPECIFICATION

10kVA (PRP) / 11kVA (ESP)

ID: 1000033682



## Diesel Genset Specification

QSV10KS

### General technical data

|                               |               |                 |                      |
|-------------------------------|---------------|-----------------|----------------------|
| Model                         | QSV10KS       | Rated voltage V | Current A            |
| Structure                     | PT            | 380             | 15.2                 |
| Prime power (PRP): kVA / kW   | 10 / 8        | 400             | 14.4                 |
| Standby power (ESP): kVA / kW | 11 / 9        | 415             | 13.9                 |
| Frequency: Hz                 | 50            | 440             | 13.1                 |
| Rotate speed: RPM             | 1500          |                 |                      |
| Phase: P                      | 3             |                 |                      |
| Power factor: $\cos\phi$      | 0.8           | Load            | Fuel consumption L/h |
| Protection class              | IP54          | 25%             | N/A                  |
| Noise level: dB@7m            | 59.0          | 50%             | 1.8                  |
| Tank capacity: L              | 30            | 75%             | 2.9                  |
| Dimensions: mm                | 1550×680×1060 | 100%            | 3.5                  |
| Dry weight: kg                | 730           | 110%            | 3.9                  |

### Main Features

| Advantage  | Design Standards   | Environmental Operating Conditions   |
|--|--|--|
| <ul style="list-style-type: none"> <li>Low fuel consumption</li> <li>Optimized system</li> <li>High reliability</li> <li>High availability</li> </ul>  | <ul style="list-style-type: none"> <li>Conformite Europeenne (CE)</li> <li>ISO8528-5:2005</li> </ul> | <ul style="list-style-type: none"> <li>Installation place: outdoor / indoor (well ventilated).</li> <li>Ambient temperature: -25°C to 45°C (the coolant heater is needed when the temperature is below 5°C)</li> <li>Humidity: Less than 80%</li> <li>Altitude: Below one thousand (1000) meters.</li> </ul> |
| Factory Inspection   | Service Support  | Performance Guarantee  |
| <ul style="list-style-type: none"> <li>Protection devices working test</li> <li>Starting ability in normal temperature</li> <li>50% rated power load moment capability</li> <li>Load test :0, 25%, 50%, 75%, 100%, 110%</li> </ul> | <ul style="list-style-type: none"> <li>Global product service support</li> </ul>                     | <ul style="list-style-type: none"> <li>Product design, manufacturing and performance have been verified by standards</li> <li>Generator set has passed transient response test according to ISO8528-5</li> <li>Both engine and alternator have passed prototype factory testing.</li> </ul>                  |

## Diesel Genset Specification

QSV10KS

### Power System

#### Engine

|                        |          |                            |                   |
|------------------------|----------|----------------------------|-------------------|
| Manufacturer / brand   | Kubota   | Intake system              | Natural aspirated |
| Model                  | D1105-BG | Intake resistance: kPa     | ≤1.96             |
| Cylinders              | 3L       | Exhaust back pressure: kPa | ≤7.07             |
| Bore: mm               | 78       | Oil capacity: L            | 5.1               |
| Stroke: mm             | 79       | Coolant capacity: L        | 6.4               |
| Displacement: L        | 1.12     | Battery voltage: V         | 12                |
| Compression ratio      | 22.0     | Dimensions: mm             | 549×398×605       |
| Rotate speed: RPM      | 1500     | Dry weight: kg             | 93                |
| Prime power: kWm       | 8.4      |                            |                   |
| Standby power: kWm     | 9.5      |                            |                   |
| Rotate speed governor  | Mech     |                            |                   |
| Type of fuel Injection | Direct   |                            |                   |

#### Alternator

|                      |             |                                   |       |
|----------------------|-------------|-----------------------------------|-------|
| Manufacturer / brand | Leroysoner  | Insulation class                  | H     |
| Model                | LSA40VS1    | Temperature rising class          | H     |
| Exciter              | Brushless   | Protection class                  | IP23  |
| Windings             | 100% copper | Voltage regulation                | ±1.0% |
| Winding pitch        | 2/3         | Telephone harmonic factor THF     | <2%   |
| Number of poles      | 4           | Telephone interference factor TIF | <50   |
| Terminals            | 12          |                                   |       |

### Control System

|       |           |
|-------|-----------|
| Brand | POWERLINK |
| Model | PLC-920   |

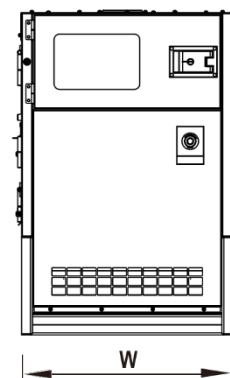
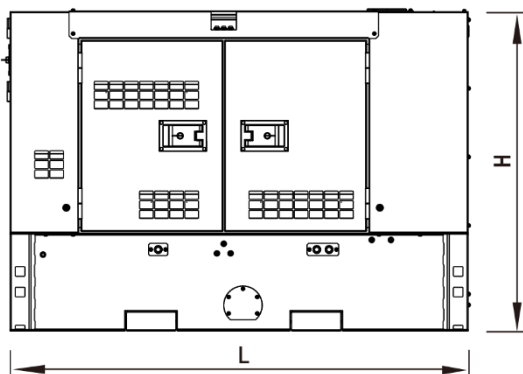
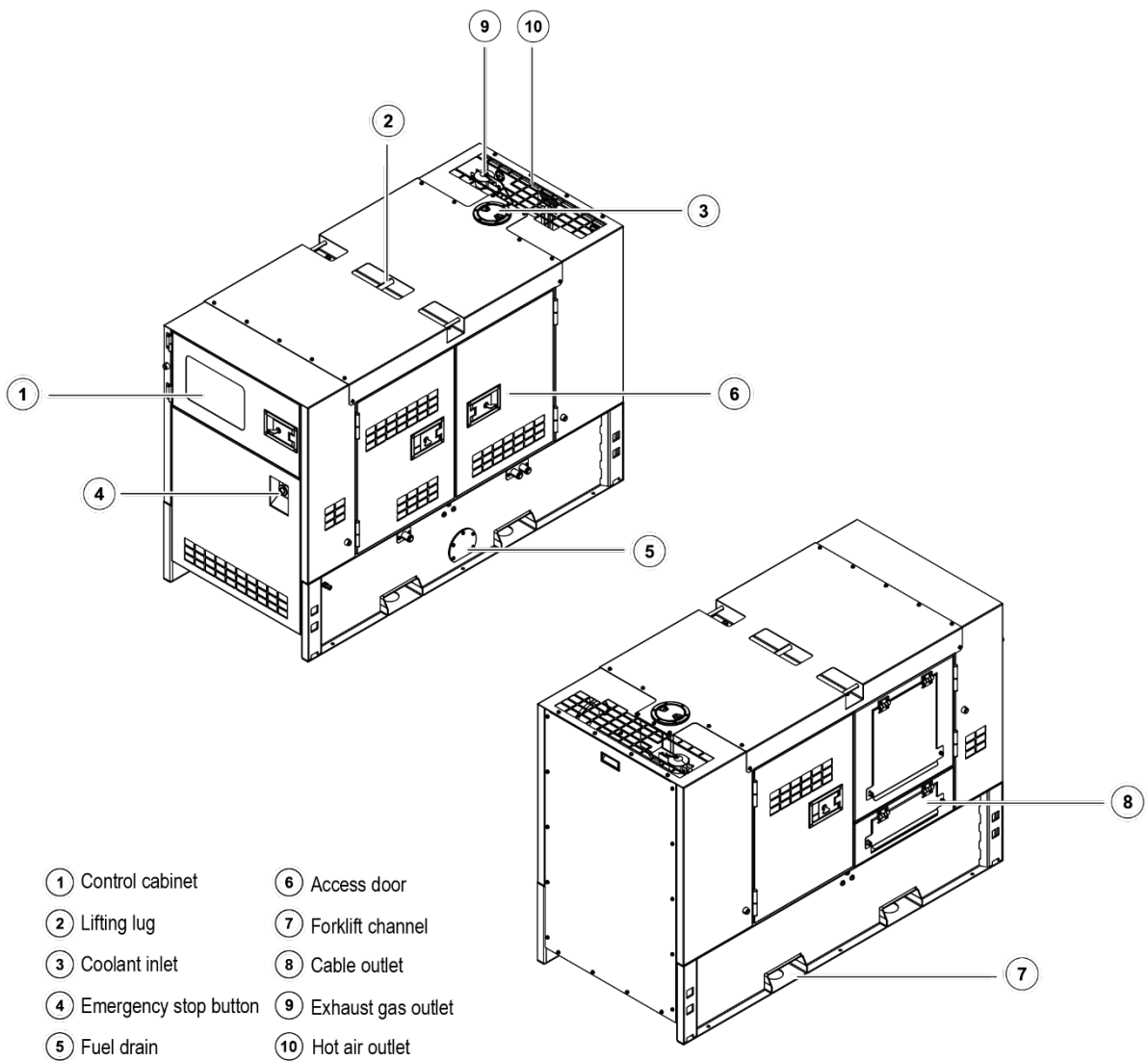
#### General Functions

- Automatic start / stop control
- Manual/remote start control
- Real time monitoring and display of multiple parameters
- RS232, RS485 interface and Ethernet can be used simultaneously
- CAN and Modbus communication
- Provide complete control solutions

#### Monitoring and protection

|                   |                 |
|-------------------|-----------------|
| Oil pressure      | Over load       |
| Water temperature | Over current    |
| Rotate speed      | Over voltage    |
| Start             | Under voltage   |
| Running time      | Over frequency  |
| Battery voltage   | Under frequency |
| .....             | .....           |

## Product Appearance



## Product Configuration

### Standard configuration

| Engine                   | Generator                  | Control switchgear      | Canopy (sound-proof)               | Base Frame                              |
|--------------------------|----------------------------|-------------------------|------------------------------------|---|
| Electrical start motor   | Alternator                 | PLC control system      | Steel plate                        | Steel base frame                        |
| Battery system           | H class insulation         | Main circuit breaker    | Corrosion-resistant coating        | Engine bracket                          |
| Speed control system     | H class temperature rising | Breaker cabinet         | Access door                        | Alternator bracket                      |
| Natural aspirated        | IP23 protection            | Communication connector | Stainless steel hinge              | Radiator bracket                        |
| Lockable isolator switch | AVR voltage regulator      | ATS connector           | Sound absorbing cotton             | Vibration isolators                     |
| Battery charger          |                            | Mains floating charger  |                                    |   |
| Fuel system              | Lubrication system         | Cooling system          | Intake / exhaust system            | Service documents                       |
| Base frame fuel tank     | Oil pressure sensor        | 50°C radiator           | Air filter                         | Installation and operation manual       |
| Fuel level sensor        | Oil temperature sensor     | Water level sensor      | Exhaust muffler                    | Test report                             |
| Flexible connection pipe | Oil filter                 | Jacket water pipe       | Exhaust bellow                     | Circuit diagram                         |
| Fuel filter              | Manual oil drain pump      | Intercooling pipe       | Exhaust pipe and flange            | Warranty manual                         |
|                          | Oil drain ball valve       |                         | High temperature protective sleeve | Engine operation and maintenance manual |
|                          |                            |                         |                                    | Standard package                        |

### Optional configuration

| Engine                 | Alternator                                | Control switchgear         | Fuel system          | Lubrication system      |
|------------------------|---|----------------------------|----------------------|-------------------------|
| Jacket water preheater | Anti-condensation heater                  | 4P circuit breaker         | Fuel three-way valve | Electric oil drain pump |
| Oil preheater          | Treatments against humidity and corrosion | ATS cabinet                | Daily fuel tank      |                         |
|                        |   | Paralleling control system |                      |                         |
|                        |   | Grid-connection system     |                      |                         |

### Power Class Definition

- Prime Power (PRP): the unit runs continuously with variable load, the number of operating hours is not limited, and 1h overload 10% operation is allowed per 12h, and the average load factor is less than 70% per 24h.
- Standby Power (ESP): operating time does not exceed 500h per year, continuous operating time does not exceed 300h, the average load factor is less than 80% per 24h. Overload operation is not allowed.

### Product Statement

- The data of specifications is based on the following standard environmental test conditions.
  - Ambient temperature 25°C
  - Altitude 100m
  - Relative humidity 30%
- Dimensions, weight and other parameters are for reference only, which shall be subject to the final design drawing.



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Data is subject to change without prior notice as new products are always developed.

Please contact PowerLink or local agent with any doubts or for more information.